GOVERNMENT OF INDIA
POWER
LOK SABHA

UNSTARRED QUESTION NO:42
ANSWERED ON:10.08.2007
IMPACT OF MELTING OF GLACIERS ON HYDRO POWER PLANTS
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Will the Minister of POWER be pleased to state:

(a) whether the melting of the glaciers of the Himalayas is posing a serious threat to the Hydro Power Plants in the country;

(b) if so, whether any study has been made by the Government in this regard;

(c) if so, the details thereof; and

(d) the steps taken to deal with the situation?

Answer

MINISTER OF STATE IN THE MINISTRY OF POWER (SHRI SUSHILKUMAR SHINDE)

(a) to (d) : Hydrological analysis in planning of hydroelectric projects is based on the past observed/estimated rainfall/run-off data. No specific study about the impact of melting of glaciers on the hydro electric plants has been carried out. However, the melting of the glaciers of the Himalayas could perhaps alter the hydrology of the glaciers-fed rivers.

As informed by Ministry of Water Resources (MoWR) and Central Water Commission (CWC), studies regarding melting of glaciers etc. have been carried out by Geological Survey of India (GSI) and based on these studies it appears that glaciers are receding. The causative factors may be subnormal snowfall, higher temperature during summer, less severe winter or a combination of all of them. If the present scenario of receding glaciers is accelerated, there may be some reduction in the river discharge. However, it may be noted that the major part of the river discharge is contributed by snowfall and precipitation which is likely to go up with global warming. The continuous retreat of Glaciers may lead to marginal shortage of water in the Himalayan Rivers. However, it may be mentioned that the major part of the Glacier melt runoff is released during June-September period which is the time for monsoon activity. Thus, marginal decrease in Glacier contribution may be compensated by increased monsoon activity.

Storage projects are needed to be constructed at the sites wherever feasible to store sufficient water during monsoon months and regulate the water during lean flow months for power generation and meeting the requirements of drinking water and irrigation.